



Decision Making in Technology Management – Can Knowledge Management Systems Enable Pediatric Oncology Caregiving Effectiveness?

Ellen Belitzky, Ph.D. Candidate

Dr. Elif Kongar, Advisor

School of Engineering - Technology Management
University of Bridgeport, Bridgeport, CT

MOTIVATION:

- Managing knowledge in healthcare impacts lives.
- Technology is available to support knowledge management.
- Social media has power to transform patient outcomes if leveraged by medical professionals and caregivers.

OBJECTIVE:

This study aims at developing the technology framework for an integrated platform which enables key stakeholders in the caregiving system to communicate with reliable, trustworthy sources thereby improving pediatric oncology patient outcomes.

METHODOLOGY:

The problem was validated at the 2017 NEDSI Conference and a literature review was conducted.

RESULTS:

If each patient has a unique situation, how do patient relationships affect health outcomes?

The pediatric oncology community is compelling and provides a data source based on established contacts.

Technology Management Framework Activities
(Cetindamar, 2009)

- Identification
- Selection
- Acquisition
- Exploitation
- Protection
- Learning

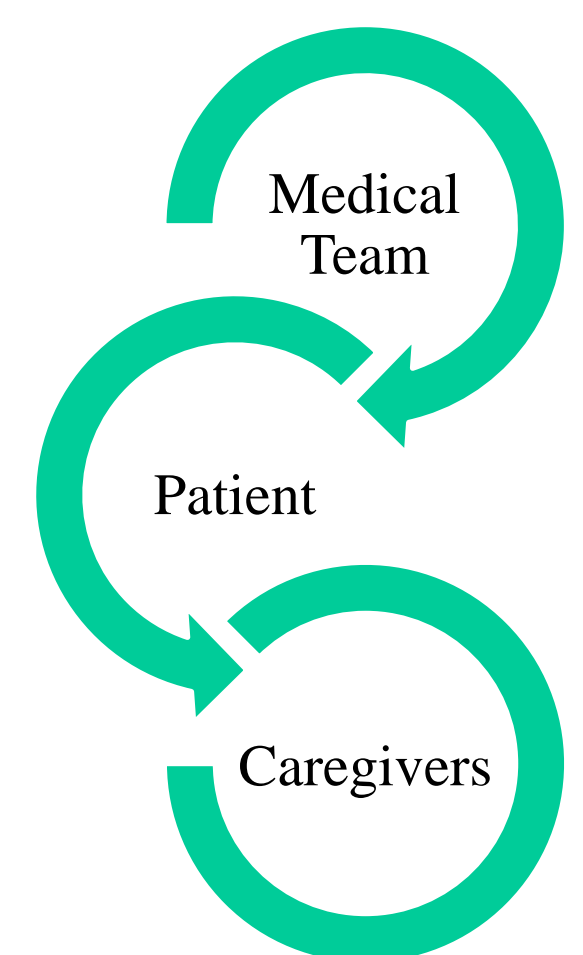
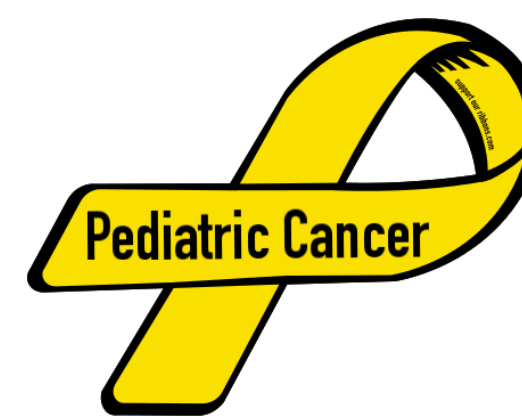
Efficient utilization of IT can enhance communication, coordination, and quality of care (Clauser, 2011).

Communication challenges with virtual teams apply to families coordinating patient care. Trust, interpersonal relations, cultural differences, leadership, and technology were variables to explore in delivering care for positive patient outcomes (Daim, 2012).

CONCLUSION:

Expert interviews will provide a reliable data source to develop the integrated platform framework.

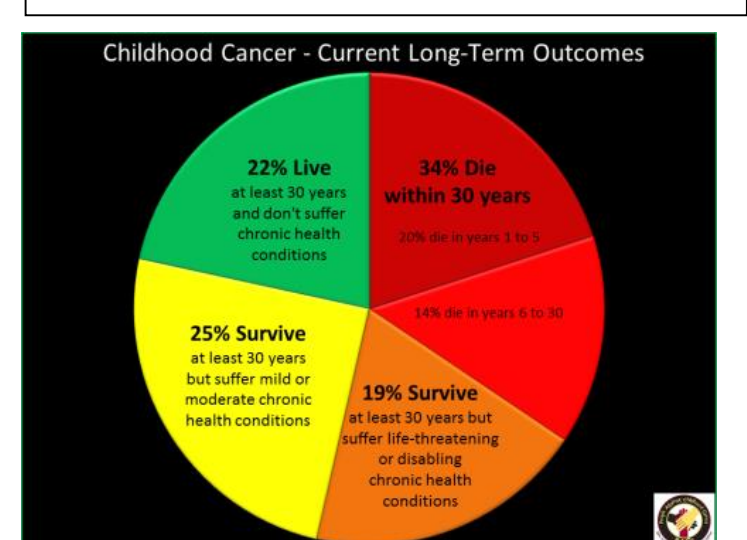
- Medical experience and psychosocial support
 - Technology in practice and choice of software/apps
 - Social media, employer policy / legal concerns
- (Creswell, 2013 and Chen, 2017)



Muralidharan et al (2011)

A patient care system is an organization:
- Goals
- Resources
- Stakeholders
(Ackoff, 1989)

Caregiver structuring of an information network can improve quality of life. Knowledge management and social media provide perspectives on how (Ford and Mason, 2013 and Razmarita et al., 2014).



<https://curechildhoodcancer.ning.com/>

References:

- Ackoff, R. L. (1989). "From data to wisdom." Journal of applied systems analysis 16(1): 3-9.
- Cetindamar, D., et al. (2009). "Understanding technology management as a dynamic capability: A framework for technology management activities." Technovation 29: 237-246.
- Chen, H., et al. (2012). "Business intelligence and analytics: From big data to big impact." MIS quarterly 36(4).
- Chen, S.-Q., et al. (2017). "The process of accepting breast cancer among Chinese women: A grounded theory study." European Journal of Oncology Nursing 28(Supplement C): 77-85.
- Clauser, S. B., et al. (2011). "Improving Modern Cancer Care Through Information Technology." American journal of preventive medicine 40(5, Supplement 2): S198-S207.
- Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches, Sage publications.
- Daim, T. U., et al. (2012). "Exploring the communication breakdown in global virtual teams." International Journal of Project Management 30(2): 199-212.
- Ford, D. P. and R. M. Mason (2013). "A Multilevel Perspective of Tensions Between Knowledge Management and Social Media." Journal of Organizational Computing and Electronic Commerce 23(1-2): 7-33.
- Menefee, H. K., et al. (2016). "Mechanisms of Communicating Health Information Through Facebook: Implications for Consumer Health Information Technology Design." J Med Internet Res 18(8): e218.
- Muralidharan, S., et al. (2011). "Hope for Haiti: An analysis of Facebook and Twitter usage during the earthquake relief efforts." Public Relations Review 37(2): 175-177.
- Razmerita, L., et al. (2014). "Social Media in Organizations: Leveraging Personal and Collective Knowledge Processes." Journal of Organizational Computing and Electronic Commerce 24(1): 74-93.